BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

In the Matter of the Application of Pacific Gas and Electric Company for Approval of its Electric Vehicle Infrastructure and Education Program (U39E).	A.15-02-009 (Filed February 9, 2015)

PROTEST OF THE OFFICE OF RATEPAYER ADVOCATES TO THE APPLICATION OF PACIFIC GAS AND ELECTRIC COMPANY'S (U 39 E) ELECTRIC VEHICLE INFRASTRUCTURE AND EDUCATION PROGRAM APPLICATION

IRYNA A. KWASNY
Attorney
Office of Ratepayer Advocates
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
Phone: (415) 703-1477
Facsimile: (415) 703-2262
Email: Iryna.Kwasny@cpuc.ca.gov

RAJAN MUTIALU
Analyst
Office of Ratepayer Advocates
California Public Utilities Commission
505 Van Ness Avenue, 4th Floor
San Francisco, CA 94102
Phone: (415) 703-2039
Facsimile: (415) 703-2905
Email: rajan.mutialu@cpuc.ca.gov

ANAND DURVASULA
Analyst
Office of Ratepayer Advocates
California Public Utilities Commission
505 Van Ness Avenue, 4th Floor
San Francisco, CA 94102
Phone: (415) 703-2765
Email: anand.durvasula@cpuc.ca.gov

JOSE ALIAGA-CARO
Utilities Engineer
Office of Ratepayer Advocates
California Public Utilities Commission
505 Van Ness Avenue, 4th Floor
San Francisco, CA 94102
Phone: (415) 703-2338
Email: Jose.Aliaga-Caro@cpuc.ca.gov

March 13, 2015

I. INTRODUCTION

Pursuant to Rule 2.6 of the California Public Utilities Commission's (Commission) Rules of Practice and Procedure, the Office of Ratepayer Advocates (ORA) protests Pacific Gas and Electric Company's (PG&E) Application (A.) 15-02-009 seeking Commission approval to establish and implement its Electric Vehicle (EV) Infrastructure and Education Program (EV Program).

II. SUMMARY OF ORA'S RECOMMENDATIONS.

ORA requests that the Commission deny PG&E's application without prejudice. PG&E should revise its application to address the following issues:

- Test the hypothesis that expanding PEV charging infrastructure will indeed increase PEV adoption through a smaller pilot;
- Permit third party ownership of electric vehicle supply equipment (EVSE) in PG&E's Program to avert an anti-competitive EVSE market and incorporate lessons learned into future EVSE deployment;
- Coordinate Marketing, Education and Outreach (ME&O) efforts with those administered by Energy Upgrade California in A.13-08-026; and
- Develop a PEV Program study plan to conduct and report findings on the PEV Program's success in promoting PEV adoption and EVSE utilization to the Commission and parties.

Alternatively, if the Commission does not deny PG&E's application, then the application should be consolidated with San Diego Gas & Electric Company's Application for Approval of its Electric Vehicle –Grid Integration Pilot Program (Application (A.) 14-04-014), and the Commission's Alternative-Fueled Vehicle Rulemaking (Rulemaking (R.) 13-11-007).

III. BACKGROUND

In its proposed PEV Program, PG&E aims to install, own and maintain approximately 25,000 Level 2[1] PEV charging stations and approximately 100 direct current (DC) Fast Chargers.[2] The EV Program would deploy approximately 25 percent of the PEV charging stations needed to support and supply 400,000 PEVs in PG&E's service territory by 2020.[3] PG&E estimates that it will incur capital costs of $551 million and operating expenses of $103 million over the five-year term of its PEV Program for a total of $654 million.

ORA has consistently supported PEV-related pilot programs that (1) are well-designed, true pilot programs that do not risk large amounts of ratepayer dollars, (2) are based on focused studies of field results, (3) analyze their impact on the grid and ratepayers, and (4) promote the adoption of PEVs.[4] ORA does not support allocating considerable ratepayer funds for a PEV infrastructure program that fails to study whether increasing access to charging stations increases PEV adoption and EVSE utilization. Before committing large amounts of ratepayer resources to a program, the hypothesis that installing more charging stations will increase PEV ownership needs to be tested. Such a test can be done through a much smaller pilot program than that which PG&E has proposed. Therefore, ORA recommends that PG&E propose a smaller pilot program

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[1] Level 2 charging uses 240-volts and provides about 10-20 miles of range per hour of charge. From empty, a full size battery electric car takes about 4-7 hours to recharge. See **www.Driveclean.ca.gov/pev/charging.php**

[2] DC Fast Charging uses 440-volts and provides up to an 80% charge in about 30 minutes. See www.Driveclean.ca.gov/pev/charging.php

[3] PG&E Application, p. 3

[4] *Protest of the Office of Ratepayer Advocates to the Application of San Diego Gas & Electric Company (U 902-E) for Authority to Implement a Pilot Program For Electric Vehicle-Grid Integration.* A.14-04-014. May 12, 2014. p. 3

putting fewer ratepayer dollars at risk to test the relationship between the increasing the number of charging stations and PEV adoption.

IV. DISCUSSION

A. PG&E's Application Should be Denied and PG&E Should Refile Its Application to Address Several Issues.

PG&E's application should be denied without prejudice. PG&E should revise its application to propose a true pilot to help the Commission and parties to accurately assess the appropriate goal, scale, cost and duration of an EVSE pilot.

1. PG&E must first test the assertion that increasing the number of charging stations will help meet the Governor's state-wide goals.

Increasing the number of charging stations will not automatically result in greater PEV sales. Although a multi-country study that examined the relationship between socio-economic factors and PEV adoption found that charging infrastructure was correlated to PEV adoption levels,[5] this relationship may not hold in all countries. For example, the study noted that while Austria, Sweden and the United States had comparable PEV market shares (percent of annual car sales), the charging infrastructure per 100,000 residents in Austria and Sweden were respectively six times and two times greater than in the United States. The study also showed that other countries, such as Ireland and Denmark, had six times the amount of charging infrastructure per 100,000 residents as the United States but had smaller PEV market shares. The study also concluded that other factors, including vehicle cost and charging period, affect PEV ownership.

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[5] Sierzchula, W., Bakker, S., Maat, K., and van Wee, B. "The influence of financial incentives and other social-economic factors on electric vehicle adoption." Energy Policy 68 (3014) 183-194.

PG&E plans a PEV pilot program consisting of 25,000 charging stations over 5 years at a cost of $654 million to test the relationship between the number of charging stations and PEV adoption. This is a giant program by any measure. In denying PG&E's application, the Commission should direct PG&E to propose a much smaller pilot that will accurately measure whether a relationship exists between the number of charging stations and PEV adoption. Ratepayers should not be asked to fund a PEV Program of the magnitude proposed by PG&E without reliable data based on meaningful metrics to show that increased siting of charging stations will in fact increase PEV adoption. This assessment can be done with a much smaller pilot at less risk to ratepayers than PG&E's program. If this true field pilot test shows that EVSE deployment in multi-unit dwellings (MuDs) and workplaces increases PEV adoption, then the Commission can decide the size of and PG&E's role in installing and maintaining wider EVSE infrastructure deployment

2. PG&E's EV Pilot Program does not consider lessons learned.

PG&E proposes to build 25,000 charging stations over 5 years, without periodically considering and adjusting for lessons learned. For instance, if the number of charging stations does not increase PEV adoption, then there is no off ramp mechanism to redesign the program or to study other factors that may affect PEV adoption rates. This is not a sensible plan. Its basic premise -- that additional charging stations will result in greater PEV adoption -- lacks any factual basis. Rather than permit PG&E to give notice to terminate its EV Program,[6] ORA recommends that the Commission deny PG&E's application and direct PG&E to propose a pilot that reduces the length of its PEV Program to two years and resizes

[6] PG&E Application pg. 4

the PEV Program to one comparable to Phase 1 of Southern California Edison's Charge Ready and Market Education Programs,[7] A.14-10-014, to study the factors that affect PEV adoption. In its new application, PG&E should outline a plan to incorporate lessons learned from PG&E's Electric Vehicle Infrastructure and Education Program to inform how a future roll out of EVSEs should be performed.

3. The structure and design of PG&E's EV Pilot Program may create an anti-competitive market.

The Commission stated that it will evaluate the utilities' role in the PEV charging infrastructure market on a case specific basis.[8] This role should not permit the utility to gain 25 percent of the expected 2020 electric vehicle services market. PG&E claims that "many of the early EV service equipment suppliers have gone bankrupt and it appears unlikely that market participants will be able to deploy EV infrastructure at the scale and pace necessary to meet the state's goals…California's bold EV and climate goals can only be achieved with dramatic acceleration of EV deployment that will rely on collaboration among all stakeholders, utilities and non-utilities alike. By this application, PG&E is taking on this challenge."[9] However, it is taking on this challenge at ratepayer expense. PG&E further states it will "own, operate and maintain the EV electric distribution infrastructure…while PG&E's EV services partners…will buy the electricity from PG&E to resell to EV drivers. PG&E will partner with EV services providers to operate and maintain the charging stations under contract with PG&E."[10] While eliminating the cost burden may encourage

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[7] SCE has proposed a Phase 1 pilot program of 1,500 charging stations

[8] (D.)14-12-079 p. 5

[9] PG&E Testimony Chapter 1, 1-2

[10] PG&E Testimony, Chapter 1, p. 1-4

PEV Program participants, it does so at the risk of giving PG&E dominance in a nascent market. Ratepayer funding of 25,000 Level 2 charging stations provides PG&E with a significant competitive advantage compared to privately owned EVSPs that wish to enter the market but do not have access to this funding.

PG&E is essentially asking ratepayers to fund its independent electric vehicle services business that will compete with third-party owned charging stations. PG&E's use of ratepayer dollars to recover EVSE costs constitutes a competitive advantage that cannot be effectively mitigated by any combination of rules, conditions or regulatory protections because third-party EVSE firms would have difficulty competing with a publicly subsidized entity. Many third-party EVSPs believe they could provide cheaper and more efficient EVSE service. These firms stress that a competitive marketplace will foster innovation and high-quality service.

Additionally, PG&E possesses several inherent competitive advantages as a result of its status as an incumbent utility. PG&E controls the location of the infrastructure that comprises the distribution system in its service territory and therefore will likely have access to information on prime charging locations. This existing knowledge of grid load and site load conditions gives PG&E a significant advantage in time and site assessment over non-utility enterprises, which in turn manifests itself as a competitive advantage with regards to interconnection costs and time.

PG&E also possesses another inherent utility advantage: its pre-existing relationship with millions of captive customers, which endows PG&E with superior name and brand recognition that can be leveraged to advertise new services through website and bill insert capabilities, the cost of which would be covered by ratepayers.

For these reasons, PG&E's ownership model is anti-competitive and may ultimately frustrate the innovation that private, independent third-party EVSE firms could bring to the nascent EVSE marketplace. The Commission should reject PG&E's Application in its current form because the program's significant size coupled with total ratepayer financing create unfair advantages, beyond the inherent advantages that PG&E possesses as an incumbent utility, that are likely to lead to an anti-competitive market.

B. The Education and Outreach efforts should be coordinated with A.13-08-026.

ORA recommends that these spending plans be funded by existing resources available for marketing, education and outreach (ME&O) activities which could be used to inform potential customers of PG&E's Electric Vehicle Infrastructure and Education Program and eliminate ME&O costs to ratepayers under this application.

Public Utilities Code section 748.5(b) requires the Commission to adopt a customer ME&O program for the utilities under the Greenhouse Gas (GHG) Cap-and-Trade Rulemaking, (R.)11-03-012. The ME&O program is called Energy Upgrade California (EUC).[11] EUC's goal is to maximize public awareness about generalized energy education and awareness, develop coherent and accurate messaging about climate change, and inform ratepayers and small businesses about action they can take to reduce GHG emissions.[12] PG&E should take advantage of the efficiencies

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[11] Energy Upgrade California is a program that educates and connects residents and small businesses to information, resources, and rebate programs Californians can utilize to reduce GHG emissions and lessen the impacts of climate change.

Resolution E-4611, pp.10-13. This Resolution reallocated ME&O funds previously approved for San Diego Gas and Electric Company (SDG&E), Pacific Gas & Electric Company (PG&E), and Southern California Edison Company (SCE) to a third-party central administration to fund the statewide GHG reduction education and outreach effort under EUC. Currently, the third-party central administrator is the Center for Sustainable Energy (CSE). However, the Commission is considering the ongoing need and involvement of a third-party central administrator in 2015 and beyond under Phase 2 of A.13-08-002. This issue is still pending but EUC will continue to be an effective channel of communication for Californians to access GHG reduction information in 2015 and beyond. See ORA Phase 1 Reply Brief for A.13-08-026, filed December 17, 2013, and resources available by coordinating the PEV ME&O into the EUC efforts.[13]

C. PG&E should report the results of its new PEV Pilot Program to the Commission.

PG&E states that it "may install fewer stations if market conditions or other factors indicate that it would not be reasonable to build out the entire program or that the program needs to be modified."[14] PG&E then lists a number of factors that would influence this decision including changes in state policy, a significant increase in deployment costs, or that new EVSPs are capable of deploying EVSEs at a scale to meet the ZEV Action Plan goals.[15] PG&E explains that it will perform an "internal review" of its Program "at the end of 24 months after start-up when…approximately 10 percent of the EV service connections, supply infrastructure, and charger equipment proposed in the EV program"[16] has been deployed. This internal review will entail:

- Comparing actual Program costs against forecast amounts;
- Evaluating PG&E's ability to identify and sign agreements with qualified site hosts; and
- Assessing current market conditions and market participants.

Again, ORA recommends that this application be denied and that PG&E submit a much smaller true pilot, that can incorporate the elements of the "internal review". In addition, ORA recommends that PG&E report its findings to the Commission. This information would form the basis for

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available at:
http://docs.cpuc.ca.gov/SearchRes.aspx?DocFormat=ALL&DocID=85033984.

[13] Application (A.)13-08-026 is the ongoing customer awareness proceeding that coordinates the ME&O program.

[14] PG&E Testimony pg. 2-5.

[15] Ibid.

[16] Ibid.

additional PG&E EVSE programs. The findings could be based on specific metrics (e.g. kWh per charging station) and methodologies (e.g. analysis of survey data from Program participants, statistics from customer use of web tools[17]) to identify EV market demand; assess PG&E's ability to alleviate EVSE related cost and access barriers in workplace, MuD, or public domain market segments; and determine how EVSE deployment did or did not promote EV adoption or EVSE utilization.

More issues will be addressed as ORA conducts discovery and analysis to develop its testimony and recommendations.

D. If Not Denied without Prejudice, PG&E's Proposed Electric Vehicle Infrastructure and Education Program should be consolidated with R.13-11-007.

On September 29, 2014 the Commission consolidated, SDG&E's Electric Vehicle-Grid Integration Pilot Program, A.14-04-014, with the AFV Rulemaking, R.13-11-007.[18] The Commission found that A.14-04-014 raised related questions of law and fact to be considered in R.13-11-007 including the role of the investor-owned utilities in the ownership of PEV infrastructure and the scale, cost, and duration of appropriate pilot projects.[19] The Commission decided that efficiency, fairness, and conservation of the Commission's and parties' resources supported consolidating SDG&E's A.14-04-014 with R.13-11-007. Since PG&E's PEV Program raises many of the same issues as SDG&E's VGI Pilot Program that may also be considered in R.13-11-007, ORA requests the Commission consolidate A.15-02-009 with R.13-11-007.

[17] PG&E Testimony pg. 5-12

V. PROCEDURAL ISSUES

1. Category

PG&E proposes that this proceeding be categorized as "ratesetting." ORA agrees with PG&E's proposed category.

2. Need for Hearings

PG&E believes that evidentiary hearings may not be needed. ORA disagrees. There are already significant controverted issues of facts, primarily is there any evidence showing a correlation between increasing charging stations and greater adoption of PEVs. Thus, ORA recommends evidentiary hearings be held.

3. Proposed Schedule

ORA has recommended this application be consolidated with R.13-11-007, if it is not summarily denied without prejudice. Therefore any scheduling in this application should not only await PG&E's revised application but should be coordinated with R.13-11-007, SDG&E's A.14-04-014 and SCE's A.14-10-014 to ensure efficiency, fairness, and conservation of the Commission's and parties' resources.

VI. CONCLUSION

The Commission should deny A.15-02-009 without prejudice to PG&E submitting a true pilot program, much smaller than currently contemplated, which will allow the Commission to evaluate whether ratepayer dollars are being reasonably spent.

If the Commission decides to go forward with PG&E's large scale program, it should consolidate A.15-02-009 with R.13-11-007,
A. 14-04-014.

Respectfully submitted,

/s/ IRYNA A. KWASNY

Iryna A. Kwasny

Attorney For:
Office of Ratepayer Advocates
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
Phone: (415) 703-1477
Facsimile: (415) 703-2262
Email: Iryna.Kwasny@cpuc.ca.gov

March 13, 2015